

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

1. (currently amended) A storage medium storing a program for making ~~an active a living party computer;~~ which holds a first disk management information buffer adapted to store physical device names of volumes stored in a disk device and volume identifiers ~~by making the~~with correspondence between the physical device names and the volume identifiers, function as;

a monitor ~~section~~ for detecting that ~~the~~ execution of a replica corresponding to a volume is completed in said disk device; and

a ~~party switchover section~~ first switching unit of a standby computer, responsive to the result of the detection in said monitor, ~~section to determine transmission for determining to transmit, to a~~said standby party computer, of a notice for informing said standby party computer that a volume identifier stored in said volume subjected to the execution of the replica is changed, and

wherein said program in said storage medium making said standby party computer, which holds a second disk management information buffer adapted to store in corresponding relation physical device names of volumes and volume identifiers ~~by making the correspondence between the physical device names and the volume identifiers~~ and a replica status management table adapted to manage a status concerning the presence or absence of a volume identifier, function as a

second switching unit of said standby computer party switchover section for executing:

a first process in which when said notice to the effect that said volume identifier stored in said volume is changed is received from said living party active computer, a first flag is stored in said replica status management table in correspondence with said physical device name of said volume;

a second process ~~in including a step of deciding as to whether said first flag is stored in said replica status management table in correspondence with said physical device name according to which said volume identifier stored in said volume is acquired in accordance with the decision result as to whether said first flag is stored in said replica status management table in correspondence with said physical device name and said acquired volume identifier is stored in said~~ second management information buffer in correspondence with said physical device name of said volume; and

a third process in which when said second process is completed, said first flag stored in said replica status management table in correspondence with said physical device name is erased.

2. (currently amended) A party switchover method in a computer system having a ~~living party~~ an active computer, a standby party computer for taking over processes of said living party active computer and a disk device for storing volumes shared by said living party active computer and said standby party computer, said method comprising:

a first step of causing said ~~first-active~~ computer to decide whether a volume identifier stored in a volume is changed; and

a second step of causing said ~~first-active~~ computer to determine, in accordance with the result of said decision in said first step, transmission to said ~~second-standby~~ computer of a notice to the effect that said volume identifier is changed; and

a third step of causing said active computer to transmit to said standby computer, in accordance with the result of said decision in said first step, a physical device name of a copy volume whose volume identifier is changed.

Claim 3 (canceled).

4. (currently amended) A party switchover method according to claim 3, wherein said ~~second-standby~~ computer has a buffer holding a table for storing in corresponding relation physical device names of volumes and volume identifiers ~~by making the correspondence between said physical device names and said volume identifiers,~~

said method further comprising:

a fourth step of causing in said first-active computer to decide, in accordance with the result of said decision in said first step, whether information is transmitted to said ~~second-standby~~ computer, said information being adapted to designate a method of changing said volume identifier stored in said buffer in correspondence with said physical device name transmitted to said second computer.

5. (original) A party switchover method according to claim 4, wherein said information adapted to designate the change method in said fourth step includes a designation as to whether said volume identifier stored in said buffer is to be erased.

6. (currently amended) A party switchover method according to claim 4, wherein each of said ~~first-active~~ and ~~second-standby~~ computers holds a table for storing in corresponding relation physical device names of volumes and flags indicative of statuses concerning the presence or absence of changes of volume identifiers of said volumes ~~by making the correspondence between said physical device names and said flags,~~

said method further comprising:

a step of causing said ~~first-active~~ computer to store, when a volume identifier stored in a volume is determined to be changed, a first flag in said table in correspondence with a physical device name of said volume; and

a step of causing said ~~second-standby~~ computer to store, when a volume identifier of a volume stored in said buffer is changed, a second flag in said table in correspondence with a physical device name of said volume.

7. (currently amended) A party switchover method according to claim 4, wherein each of said ~~first-active~~ and ~~second-standby~~ computers holds a table for storing in corresponding relation physical device names of volumes and

flags indicative of statuses concerning the presence or absence of changes of volume identifiers of said volumes ~~by making the correspondence between said physical device names and said flags,~~

said method further comprising:

a step of causing said ~~second~~ standby computer to decide whether a first flag is stored and a second flag is not stored in said table in correspondence with a physical device name; and

a step of causing said ~~second~~ standby computer to decide, in accordance with the result of said decision, whether a volume identifier stored in said buffer in correspondence with said physical device name is to be changed.

8. (currently amended) A first computer connected to a memory unit including volumes shared by said first computer and a second computer, comprising:

a first disk management information buffer storing physical device names of volumes and volume identifiers with correspondence between the physical device names and the volume identifiers;

a monitor ~~section~~ for detecting that a volume identifier stored in a volume is changed; and

a first switching unit ~~party switchover section~~ for determining to transmit, in accordance with the a result of said decision ~~detection in said monitor~~, ~~transmission~~ to said second computer of a notice to the effect that said volume identifier is changed.

9. (currently amended) A first computer according to claim 8, wherein said first switching unit ~~party switchover section~~ determines to transmit, in accordance with the result of detection of said changed volume identifier of said volume, ~~transmission to said second computer of a physical device name of a copy~~ volume whose volume identifier is changed.

10. (currently amended) A first computer according to claim 9, wherein said ~~party switchover section~~ first switching unit determines to transmit, in accordance with the detection results by said ~~party switchover section~~ first switching unit, ~~transmission to said second computer of information for designating a method~~ of changing said volume identifier stored in said buffer held by said second computer in correspondence with said physical device name determined to be transmitted to said second computer.

11. (original) A first computer according to claim 10, wherein said information for designating the change method includes a designation as to whether said volume identifier stored in said buffer is to be erased.

12. (currently amended) A computer system comprising: ~~having the first and second computers as recited in claim 10;~~
an active computer;
a standby computer for taking over processes of said active computer; and

a disk drive for storing volumes shared by said active computer and said standby computer.

wherein each of said ~~first active~~ and ~~second standby~~ computers holds a table for storing in corresponding relation physical device names of volumes and flags indicative of statuses concerning the presence or absence of changes of volume identifiers of said volumes;

wherein said switching unit ~~party switchover section~~ is adapted to store, in accordance with the result of detection that a volume identifier stored in a volume is changed by means of said ~~monitor section~~, a first flag in said table in correspondence with a physical device name of said volume; and

wherein said ~~second standby~~ computer has a second ~~party switchover section~~ switching unit which, when a volume identifier of a volume stored in said buffer is changed, stores a second flag in said table in correspondence with a physical device name of said volume.

13. (currently amended) A ~~second standby~~ computer connected to a ~~first~~ standby active computer ~~according to claim 10~~, comprising:

a table for storing in corresponding relation physical device names of volumes and flags indicative of statuses concerning the presence or absence of changes of volume identifiers of said volumes ~~by making the correspondence between said physical device names and said flags~~ as detected by a monitor of said transmitted from a first switching unit of said active computer; and

a second ~~party switchover section~~switching unit for deciding whether a first flag is stored and a second flag is not stored in said table in correspondence with a physical device name, and determining, in accordance with ~~the result of said decision~~statuses of said flags, whether a volume identifier stored in said buffer in correspondence with said physical device name is to be changed.